

FY16758PCTUS

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Nobuyuki Kanno
Appl. No. : Unknown
Filed : Concurrently Herewith
For : DRIVE UNIT FOR ELECTRIC
MOTOR -OPERATED VEHICLE
Examiner : Unknown
Group Art Unit: Unknown

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Preliminary to the examination of this application on its merits, please amend this application as follows:

IN THE CLAIMS

Amend Claims 1 through 3 as follows:

1. (Amended) An electric motor-operated vehicle comprised of a frame, a wheel journalled by said frame, an electric motor carried by said frame and having an output shaft, and a transmission for selectively driving said wheel from said electric motor output shaft or permitting said wheel to free wheel relative to said output shaft, said transmission comprising a planetary gear mechanism having a sun gear element, at least one planetary gear element meshing with said sun gear element, a ring gear element meshing with said planetary gear element and a carrier plate element supporting planetary gear element for rotation, said output shaft driving one of said planetary gear mechanism elements, another of said planetary gear mechanism elements being in driving relation with said wheel and a coupling element for

selectively retaining still another of said planetary gear mechanism elements against rotation or permitting rotation thereof for selectively driving said wheel from said output shaft of said motor at a specified speed reduction ratio or permitting freewheeling of said wheel relative to said output shaft.

2. (Amended) An electric motor-operated vehicle according to claim 5, wherein the wheel is driven by a transmission output shaft connected to the carrier plate element coaxially with the axis of said plate element, a wheel gear fixed to an inside cylindrical surface of said wheel driven by an output gear formed on the transmission output shaft, the motor output shaft and the transmission output shaft are disposed coaxially.

3. (Amended) An electric motor-operated vehicle according to claim 1, wherein there are a pair of wheels each driven by a respective electric motor and planetary gear mechanism mounted on each of said wheels, an operation mechanism mounted on the vehicle frame, and a transmitting system for transmitting the action of the operation mechanism simultaneously to both coupling elements of said planetary gear mechanisms.

Add the following new claims:

4. (New) An electric motor-operated vehicle according to claim 1, wherein the output shaft drives the sun gear element.

5. (New) An electric motor-operated vehicle according to claim 4, wherein coupling element couples the carrier plate element to the wheel.

6. (New) An electric motor-operated vehicle according to claim 4, wherein the ring gear element is the planetary gear mechanism element that is selectively held against rotation or permitted to rotate.

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REMARKS

This preliminary amendment is being made to bring the claims into conformity with the practice in this country. An action on the merits is most courteously solicited.

Respectfully submitted,

By: 

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VERSION WITH MARKINGS SHOWING CHANGES MADE

1. (Amended) An [drive unit for an] electric motor-operated vehicle comprised of a frame, a wheel journaled by said frame, an electric motor carried by said frame and having an output shaft, and a transmission for selectively driving said wheel from said electric motor output shaft or permitting said wheel to free wheel relative to said output shaft, said transmission comprising [provided with] a planetary gear mechanism having[;] a sun gear element [rotating together with a motor output shaft], at least one planetary gear element meshing [the]with said sun gear element, [and] a ring gear element meshing with said [the] planetary gear element [;]

and [constituted that an arm] a carrier plate element supporting [the]said planetary gear element for [is rotated with the] rotation, said output shaft driving one of said planetary gear mechanism elements, another of said planetary gear mechanism elements being in driving relation with said wheel and a coupling element for selectively retaining still another of said planetary gear mechanism elements against rotation or permitting rotation thereof for selectively driving said wheel from said output shaft of [the] said motor at a specified speed reduction ratio or permitting freewheeling of said wheel relative to said output shaft[, characterized in that the ring gear is supported for rotation relative to a housing and that a switching mechanism for holding or releasing the relative rotation of the ring gear is provided].

2. (Amended) An [drive unit for an] electric motor-operated vehicle according to claim [1]5, [characterized in that] wherein the wheel is driven by a transmission [an] output shaft [is] connected to the carrier plate element coaxially with the axis of [the arm]said plate element, a wheel gear fixed to [the]an inside cylindrical surface of [a] said wheel [is] driven [with]by an output gear formed on the transmission output shaft, [and that] the motor output shaft and the transmission output shaft are disposed coaxially.

3. (Amended) An [drive unit for an] electric motor-operated vehicle according to claim 1, [characterized in that the]wherein there are a pair of wheels each driven by a respective electric motor and planetary gear mechanism [is] mounted on each of [right and left]said wheels, [there

are provided] an operation mechanism mounted on the vehicle frame, and a transmitting system for transmitting the action of the operation mechanism simultaneously to both [switching mechanisms]coupling elements of said[the right and left] planetary gear mechanisms[, and the relative rotation of the ring gears is held or released by the right and left switching mechanisms according to the operation of the operation mechanism].

4. (New) An electric motor-operated vehicle according to claim 1, wherein the output shaft drives the sun gear element.

5. (New) An electric motor-operated vehicle according to claim 4, wherein coupling element couples the carrier plate element to the wheel.

6. (New) An electric motor-operated vehicle according to claim 4, wherein the ring gear element is the planetary gear mechanism element that is selectively held against rotation or permitted to rotate.